

a plurality of integrated, intersecting walls, each of which extending from said top to bottom surface and having a plurality of side surfaces, said side surfaces of said walls being arranged to define a plurality of openings extending entirely through said layer, each intersection point of said intersecting walls including additional wall material in at least one of the metal layers which extends into at least one of said openings;

 said each respective additional wall material is arranged such that a total amount of material of said walls intersected by a line propagating in a first direction for the length of one period along the grid is substantially the same for any period along the first direction; and

C
cont.

 said each respective additional wall material is arranged such that a total amount of material of said walls intersected by a line beginning at said second edge and propagating in a first direction for a first distance including at least one period along the grid and extending substantially parallel to said first edge is substantially the same as another total amount of material of said walls intersected by another line beginning at said second edge at any distance from a point on said second edge from which the first direction extends and propagating in a second direction, substantially parallel to said first direction, for a second distance substantially equal to said first distance.

12. (Amended) A grid as claimed in claim 1, wherein:

 said additional wall material at at least one said intersection point has a side extending in a substantially straight direction between two of said walls.

C
2

13. (Amended) A grid as claimed in claim 1, wherein:

 at least one of said openings has a material disposed therein which is adapted to permit said electromagnetic energy to pass therethrough, and a second material suspended in said material which is adapted to substantially prohibit said electromagnetic energy from passing therethrough.

31. (Amended) A method for minimizing scattering of electromagnetic energy in an electromagnetic imaging device that is adapted to obtain an image of an object on an imager, comprising:

placing a grid between an electromagnetic energy emitting source of the electromagnetic imaging device and said imager, said grid comprising at least one metal layer including top and bottom surfaces and a plurality of integrated, intersecting walls, each of which extending from said top to bottom surface and having a plurality of side surfaces, said side surfaces of the walls being arranged to define a plurality of openings extending entirely through said layer, at least one of said openings having a non-square shape at said top surface; and

moving said grid in a grid moving pattern while said electromagnetic energy emitting source is emitting energy toward said imager.

Please delete claims 3, 4, and 5.

Please add new claims 46-75 as follows.

46. (New) A method for making a grid with parallel walls, comprising at least one layer having a plurality of intersecting walls defining openings therein, and being adapted for use with electromagnetic energy emitting devices, the method comprising: applying a resist coating onto a substrate structure; covering at least a portion of the resist with a mask having a plurality of apertures appropriate for obtaining the grid shape;

irradiating parallel rays of energy which propagates in a propagating direction;

placing the substrate and mask at an angle with respect to the propagating direction of the energy such that portions of the rays of energy that pass through the apertures in the mask expose portions of the resist, with some of the portions of rays of energy entering at least some of the apertures in the mask at an angle with respect to the substrate;

removing the portions of the resist after appropriate exposure dose from the rays of energy to create openings in the resist; and

introducing material into the openings in the remaining portion of the resist such that the material forms the intersecting walls of at least one layer of the grid, with at least one of the intersecting portions having additional wall material extending into at least one of said openings in the grid.

47. (New) The method according to claim 46, wherein:
the wall is perpendicular to the substrate.

48. (New) The method according to claim 46, wherein the step of irradiating parallel rays of energy comprises:

generating the rays of energy in the form of a sheet beam having a length extending in a first direction and a width extending in a second direction, with the parallel rays of energy propagating in the propagating direction that is perpendicular to the first and second directions.

49. (New) The method according to claim 48, further comprising:
moving the mask and substrate together in the first and second direction so that the propagating energy covers all the resist coated substrate and mask, and the portions of the energy that enter the apertures in the mask expose the resist at the angle with respect to the substrate.

50. (New) The method according to claim 48, wherein:
the angle is substantially 90 degrees.

51. (New) The method according to claim 46, wherein said introducing step comprises:

removing the remaining portions of the resist.

14

52. (New) The method according to claim 51, further comprising: introducing the material into the openings in the remaining portions of the resist.

53. (New) The method according to claim 52, further comprising: removing the substrate from the wall material.

54. (New) A method for making a grid with non-parallel walls in a first direction, comprising at least one layer having a plurality of intersecting walls defining openings therein, and being adapted for use with electromagnetic energy emitting devices, the method comprising:

applying a resist coating onto a substrate structure; covering at least a portion of the resist with a mask appropriate for obtaining the grid shape;

irradiating rays of energy in the form of a sheet beam having a length extending in the first direction and a width extending in a second direction, with the energy propagating in a direction that is perpendicular to the first and second directions;

positioning the substrate and mask such that the surface of the substrate is parallel to the first direction; and

moving the substrate and mask together in the second direction and at the same time rotating the substrate and mask such that a line perpendicular to the substrate is at various angles with respect to the propagating direction of the rays of energy such that portions of the rays of energy that pass through the apertures in the mask expose portions of the resist, with some of the portions of rays of energy entering at least some of the apertures in the mask at an angle with respect to the substrate.

55. (New) The method according to claim 54, wherein the moving step comprises:

moving the resist coated substrate and mask together in the second direction and at the same time rotating the substrate and mask together such that a line perpendicular to the substrate makes an appropriate arcuate angle in order to expose the portions of the resist such that when the portions of the resist are removed and the material is introduced, the material forms a first set of wall structures that are focused to a line.

56. (New) The method according to claim 54, further comprising:
covering at least a portion of the resist with a second mask;
rotating and aligning the substrate to the second mask; and
moving the substrate and the second mask together in the second direction such that portions of the rays of energy that pass through the apertures in the mask expose portions of the resist, with some of the portions of rays of energy entering at least some of the apertures in the mask at an angle with respect to the substrate in order to expose the portions of the resist such that when the portions of the resist are removed and the material is introduced, the material forms a second set of wall structures that are parallel.

14

57. (New) The method according to claim 56, further comprising:
forming a first set of walls focused to a line; and
forming the second set of wall structures parallel to each other.

58. (New) The method according to claim 54, further comprising:
covering at least a portion of the resist with a second mask;
rotating and aligning the substrate to the second mask; and
moving the substrate and the second mask together in the second direction and at the same time rotating the substrate and second mask such that a line perpendicular to the substrate is at various angles with respect to the propagating direction of the rays of energy such that portions of the rays of energy that pass through the apertures in the second mask expose portions of the resist, with some of the portions of rays of energy

14

entering at least some of the apertures in the second mask at an angle with respect to the substrate in order to expose the portions of the resist such that when the portions of the resist are removed and the material is introduced, the material forms a second set of wall structures.

59. (New) The method according to claim 58, wherein the moving step comprises:

moving the resist coated substrate and second mask together in the second direction and at the same time rotating the substrate and second mask together such that a line perpendicular to the substrate makes an appropriate arcuate angle in order to expose the portions of the resist such that when the portions of the resist are removed and the material is introduced, the material forms the second set of wall structures that are focused to a line.

60. (New) The method according to claim 59, further comprising:
forming the first and second sets of wall structures such that each is focused to a point.

61. (New) The method according to claim 54, further comprising:
covering at least a portion of the resist with a third mask;
rotating and aligning the substrate to the third mask, and
moving the substrate and the third mask together in the second direction and at the same time rotating the substrate and third mask together such that a line perpendicular to the substrate is at various angles with respect to the propagating direction of the rays of energy such that portions of the rays of energy that pass through the apertures in the third mask expose portions of the resist, with some of the portions of rays of energy entering at least some of the apertures in the third mask at an angle with respect to the substrate in order to expose the portions of the resist such that when the

portions of the resist are removed and the material is introduced, the material forms a third set of wall structures.

62. (New) The method according to claim 61, wherein the moving step comprises:

moving the resist coated substrate and third mask in the second direction and rotate the substrate and third mask such that a line perpendicular to the substrate makes an appropriate arcuate angle in order to expose the portions of the resist such that when the portions of the resist are removed and the material is introduced, the material forms the added materials for the intersection of the first and second sets of wall structures that are focused to a line.

14
63. (New) The method according to claim 62, further comprising:

forming the first, second and the third sets of wall structures such that all are focused to a point.

64. (New) The method according to claim 63, further comprising:
forming the first and second set of wall structures such that each is focused to a point; and

forming the first and second set of wall structures such that additional material is located at at least one of the intersections of the first and second wall structures.

65. (New) The method according to claim 64, further comprising:
forming the first and second set of wall structures such that they form a plurality of squares and have additional material at at least one of the intersections of the first and second set of wall structures.

66. (New) The method according to claim 54 further comprising:
removing the resist.

67. (New) The method according to claim 54, further comprising:
introducing the material into the openings in the remaining portions of the resist.

68. (New) The method according to claim 54, further comprising:
removing the substrate from the wall material.

69. (New) The method according to claim 37, further comprising:
removing the substrate from the wall material.

14
70. (New) A method of motion adaptable for use for mammography of a grid, comprising the following steps:

 moving said grid along a substantially straight line, wherein said grid comprises:
 at least one metal layer comprising:
 top and bottom surfaces that are substantially flat;
 two sets of intersecting walls, said surfaces of said walls being arranged to define a plurality of square openings extending entirely through said layers, said intersecting walls form said openings in a periodic pattern, where the periodicity is the dimension of the square;
 said squares are at substantially 45 degree angle with respect to the line of grid motion;
 said grid walls are substantially focused to a point above the grid; and
 said location of the focus of the grid is chosen such that a line drawn from the center of the edge of the grid along the line of grid motion to the focus of the grid walls is substantially perpendicular to the top surface of the grid;

moving said grid along a substantially straight line at a substantially uniform speed; and

moving said grid more than one period during the mammography.

71. (New) The method according to claim 70, wherein:
said openings include an additional thickness in the intersection of the walls;

said additional thicknesses are arranged such that a total length of said walls intersected by a line propagating in the line of grid motion for the length of one period along the grid is substantially the same for any period along the line of grid motion;

14
said additional thicknesses are additionally arranged such that a total length of said walls intersected by a first line propagating in the line of grid motion for a first distance including at least one period along the grid is substantially the same as another total length of said walls intersected by another line substantially parallel to said first line for a second distance substantially equal to said first distance.

72. (New) A method of motion adaptable for use for mammography of a grid, comprising the following steps:

moving a grid assembly along a substantially straight line, wherein said grid assembly comprises a first and second grid, wherein the first grid comprises:

at least one metal layer comprising:

top and bottom surfaces that are substantially flat;

two sets of intersecting walls, said surfaces of said walls being arranged to define a plurality of substantially square openings extending entirely through said layers, said intersecting walls form said openings in a periodic pattern, where the periodicity is the dimension of the square;

said squares are at a substantially 45 degree angle with respect to the line of grid motion;

said grid walls are focused to a point above the grid;

14
said location of the focus of the grid is chosen such that a line drawn from the center of the edge of the grid along the line of grid motion to the focus of the grid walls is substantially perpendicular to the top surface of the grid;

said second grid is substantially the same as the first grid except that said openings include an additional thickness in the intersection of the walls;

said additional thicknesses are arranged such that a total length of said walls intersected by a line propagating in line of grid motion for the length of one period along the grid is substantially the same for any period along the line of grid motion;

said additional thicknesses are additionally arranged such that a total length of said walls intersected by a first line propagating in the line of grid motion for a first distance including at least one period along the grid is substantially the same as another total length of said walls intersected by another line substantially parallel to said first line for a second distance substantially equal to said first distance;

said first and second grids are substantially aligned;

moving said first and second grid along a substantially straight line at a substantially uniform speed; and

moving said grid more than one period during the mammography.

73. (New) The method according to claim 37, further comprising:
removing the substrate from the wall material.

74. (New) The method according to claim 52, wherein said introducing step comprises:

electroplating the material into the openings in the remaining portions of the resist.

75. (New) The method according to claim 67, wherein said introducing step comprises: